



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Donald W. Verser et al.

Serial No.: 10/699,095

Filed: October 31, 2003

For: Separation of Polymer Particles and  
Vaporized Diluent in a Cyclone

§ Group Art Unit: 1713  
§  
§ Examiner: Lu, C. Caixia  
§  
§ Atty. Docket: CPCM:0016/FLE  
§ 210441US00

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July 27, 2007  
Date

  
Dawn Brown

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

In light of the following remarks, Appellants respectfully request review of the Final Rejection of the above-identified application, in which the Examiner rejected all pending claims 1, 15, 28-31, 33, and 36-42 in two rejections under 35 U.S.C. § 103(a). This Request is being filed with a Notice of Appeal. No amendments are being filed with this Request. In view of the following remarks, Appellants respectfully request reconsideration and allowance of all pending claims.

**Legal Error of First Rejection under 35 U.S.C. § 103(a)**

In the Office Action, the Examiner rejected claims 1, 15, 28-31, 33, and 36-42 under 35 U.S.C. § 103(a) as being unpatentable over Kendrick et al. (U.S. Patent No. 6,204,344) in view of Hanson (U.S. Patent No. 5,597,892). Appellants respectfully traverse this rejection. As repeatedly explained during examination of the present application, the cited *Kendrick reference is not prior art* with regard to the present claims because the present claims have an earlier effective filing date than Kendrick. The present claims are fully supported by the parent Hottovy, U.S. Patent No. 6,239,235, which has a filing date July 15, 1997. No present claims require support from information added in

the present continuation-in-part filed October 31, 2003. Moreover, the parent (Hottovy '235) incorporates by reference Hanson (U.S. Patent No. 4,424,341) which can support the present claims. *See* 37 C.F.R. § 1.57(f).

Based on the face of the Kendrick reference (U.S. Patent No. 6,204,344), the Kendrick filing date is May 18, 1999, and the apparent priority date is March 19, 1999. Consequently, as stated, Kendrick is not prior art with regard to the present claims. Thus, the present rejection, which is based on a combination of the *Kendrick* and Hanson '892 references, should be withdrawn, and the claims allowed.

In the Response to Arguments section of the Final Office Action, the Examiner disagreed, stating that "the current pending claims are only support [sic] by the specification of the current application [the present CIP] rather than fully supported by the specification of a parent, Hottovy (6,239,235), which includes the incorporated Hanson (US 4,424,341)." *See* Final Office Action, page 2 (emphasis in original). The Examiner apparently gave two reasons in asserting incorrectly that the present claims have the later filing date of the present CIP and not of the parent Hottovy 6,239,235. *See id.* at pages 2-3.

First, the Examiner contended that "Hottovy's specification only disclosed an olefin polymerization process, and the monomer polymerization process without the [sic] any limitation to the monomer is only disclosed in the current specification." *See id.* at page 2 (emphasis in original). However, based on the plain language of the claims, the disclosure and context provided by the Hottovy '235 specification, and the ordinary meaning of "monomer" in the relevant art, the skilled artisan would reasonably conclude that Appellants had possession of the recited invention. *See, e.g., Moba, B.V. v. Diamond Automation, Inc.*, 66 U.S.P.Q.2d 1429, 1438 (Fed. Cir. 2003) (explaining that for an applicant to satisfy the written description requirement, one skilled in the art need only reasonably conclude that the inventor had possession of the claimed invention in view of the specification); M.P.E.P. § 2163, page 2100-165 (Rev. 5, Aug. 2006); *see also Phillips v. AWH Corp.*, 75 U.S.P.Q.2d 1321, 1326 (Fed. Cir. 2005) (explaining that one should rely heavily on the written description for guidance as to the meaning of the claims). "The inquiry into how a person of

ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” *See Collegenet, Inc. v. ApplyYourself, Inc.*, 75 U.S.P.Q.2d 1733, 1738 (Fed. Cir. 2005) (quoting *Phillips* at 1326) (holding that derivation of a claim term must be based on “usage in the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art”).

Second, the Examiner contended that “Hottovy together with Hanson ‘341 requires separation of the polymer slurry intermediate product by a flash tank first and then further separates the liquid portion of the polymer slurry by a cyclone rather than separating the polymer slurry intermediate product in a cyclone directly as required by claims 1, 15, 28-31, 33, and 36.” *See* Office Action, page 3 (emphasis in original). To the contrary, Hanson ‘341 states “there are many variations of the illustrated embodiment which fall within the scope of the invention.” *See* Hanson ‘341, col. 4, lines 3-5. Appellants believe this accommodation of many variations, combined with the express example in Hanson of placing the cyclone 25 in the flash chamber 20, provides for processing (including the “direct” processing) of the polymer slurry intermediate product via the cyclone 25. *See* Hanson ‘341, col. 4, lines 9-12.

Moreover, while Appellants believe the *direct* processing of the intermediate product via a cyclone is supported by Hottovy ‘235 (and the incorporated Hanson ‘341), the claims do not expressly recite the “direct” processing of the intermediate product in a cyclone. For example, claim 1 recites “separating the vapor from the concentrated intermediate product by centrifugal force in a cyclone,” and claim 26 recites “separating vapor from the heated discharge slurry via centrifugal forces.” One of ordinary skill in the art would plainly understand that the disclosed configuration of a cyclone placed inside the flash chamber supports this claim language. To be sure, a cyclone placed in the flash chamber provides for “separating the vapor from the concentrated intermediate product by centrifugal force in a cyclone,” as recited in claim 1. The combined configuration of a cyclone and flash chamber (typically having a tangential entry as known by the skilled artisan) provides for “separating vapor from the heated discharge slurry via centrifugal forces,” as recited in claim 26.

It should also be noted that the intermediate product exiting the upstream flash line (which transports the intermediate product from the reactor) consists primarily of solids and vapor with little or no liquid. Indeed, the intermediate product is subjected to heat and de-pressure as it travels through the flash line, and most or all of the liquid in the intermediate product exiting the reactor is vaporized in the flash line. In this example, one of ordinary skill in the art would plainly understand that at least a significant portion of the entering intermediate product is processed by a cyclone placed inside the flash chamber.

It should be further noted that independent claim 36 is not limited to a cyclone or separation via centrifugal forces, but instead recites “separating a vapor from the heated discharge slurry in a *separator*.” (Emphasis added). Appellants respectfully assert that the Examiner has not fully address the subject matter of claim 36. Lastly, Appellants note that the Examiner apparently misunderstands the technology in asserting that Hottovy ‘235 together with Hanson ‘341 requires that “the *liquid* portion of the polymer slurry” be separated “by a cyclone.” *See* Office Action, page 3 (emphasis added). There is absolutely no basis for this technical assertion. In conclusion, Appellants believe the cited Kendrick reference is not prior because the effective filing date of the present claims is the same as the parent Hottovy ‘235, and therefore, the foregoing rejection should be withdrawn.

#### **Legal Error of Second Rejection under 35 U.S.C. § 103(a)**

The Examiner also rejected claims 1, 15, 28-31, 33, and 36-42 under 35 U.S.C. § 103(a) as being unpatentable over Tormaschy et al. (EP 0 432 555 A2) in view of respectively Hanson (U.S. Patent No. 5,597,892) and Hanson et al. (U.S. Patent No. 4,424,341). Appellants respectfully traverse this rejection.

All independent claims 1, 28, and 37 recite a continuous withdrawal of slurry from the loop reaction zone. The Examiner relied on Tormaschy to teach this feature. However, Tormaschy is completely silent with regard to a continuous withdrawal (e.g., continuous take-off) of slurry from the loop reactor. *See, e.g.*, Tormaschy, page 5, lines 40-43; Figure 1. Indeed, based on the date of the reference and on Appellants’ understanding of the Tormaschy patent, Appellants believe that the

Tomaschy systems incorporate the typical settling leg configuration, and not a continuous withdrawal from the reactor. The previously-submitted Declaration of John D. Hottovy under 37 C.F.R. § 1.132 further clarifies that Tomaschy does not disclose or even contemplate a continuous withdrawal. Further, the two cited Hanson references do not obviate this deficiency of Tomaschy. Therefore, all claims are patentable over the cited combination.

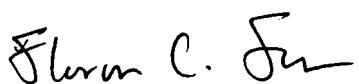
In addition, the Tomaschy reference also does not teach or suggest withdrawing a slurry having an increase in solids concentration as compared with the slurry in the reactor, as recited in claims 28 and 37. *See* Tomaschy, col. 5, lines 53-58. The two cited Hanson references do not obviate this deficiency. Therefore, claims 28 and 37, and their dependent claims, are patentable over the cited combination for this reason as well. For these reasons, Appellants respectfully request that the Examiner withdraw the foregoing rejection under 35 U.S.C. § 103 and allow the claims.

***Request Withdrawal and Review of Final Rejections***

In view of the foregoing, Appellants respectfully request that the Examiner withdraw the rejection and allow pending claims 1, 15, 28-31, 33, and 36-42. Further, Appellants respectfully request review of the Final Rejections prior to filing of an Appeal Brief in the present application.

Respectfully submitted,

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